#9

SEQUENCE LISTING

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VALENTIN, EMMANUEL

<120> CLONING AND RECOMBINANT EXPRESSION OF MAMMALIAN GROUP XII SECRETED PHOSPHOLIPASE A2

<130> 1479-R-00

<140> 09/975,374
<141> 2001-10-11

<150> 60/239,489
<151> 2000-10-11

<160> 18

<170> PatentIn Ver. 2.1

<210> 1
<211> 716
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (121)..(690)
<223> cDNA coding the human group XII sPLA2

<400> 1
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ctctgtgggg acgcgccccg cgccgcggct cggggacccg tagagcccgg cgctgcgcgc 120

atg gcc ctg ctc tcg cgc ccc gcg ctc acc ctc ctg ctc ctc ctc atg 168
Met Ala Leu Leu Ser Arg Pro Ala Leu Thr Leu Leu Leu Leu Leu Met
1 5 10 15

gcc gct gtt gtc agg tgc cag gag cag gcc cag acc acc gac tgg aga 216
Ala Ala Val Val Arg Cys Gln Glu Gln Ala Gln Thr Thr Asp Trp Arg
20 25 30

gcc acc ctg aag acc atc cgg aac ggc gtt cat aag ata gac acg tac 264
Ala Thr Leu Lys Thr Ile Arg Asn Gly Val His Lys Ile Asp Thr Tyr
35 40 45

ctg aac gcc gcc ttg gac ctc ctg gga ggc gag gac ggt ctc tgc cag 312
Leu Asn Ala Ala Leu Asp Leu Leu Gly Gly Glu Asp Gly Leu Cys Gln
50 55 60

tat aaa tgc agt gac gga tct aag cct ttc cca cgt tat ggt tat aaa 360
Tyr Lys Cys Ser Asp Gly Ser Lys Pro Phe Pro Arg Tyr Gly Tyr Lys
65 70 75 80

ccc tcc cca ccg aat gga tgt ggc tct cca ctg ttt ggt gtt cat ctt 408
Pro Ser Pro Pro Asn Gly Cys Gly Ser Pro Leu Phe Gly Val His Leu
85 90 95

aac att ggt atc cct tcc ctg aca aag tgt tgc aac caa cac gac agg 456

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Asn Ile Gly Ile Pro Ser Leu Thr Lys Cys Cys Asn Gln His Asp Arg
            100                 105                 110

tgc tat gag acc tgt ggc aaa agc aag aat gac tgt gat gaa gaa ttc      504
Cys Tyr Glu Thr Cys Gly Lys Ser Lys Asn Asp Cys Asp Glu Glu Phe
        115                 120                 125

cag tat tgc ctc tcc aag atc tgc cga gat gta cag aaa aca cta gga      552
Gln Tyr Cys Leu Ser Lys Ile Cys Arg Asp Val Gln Lys Thr Leu Gly
    130                 135                 140

cta act cag cat gtt cag gca tgt gaa aca aca gtg gag ctc ttg ttt      600
Leu Thr Gln His Val Gln Ala Cys Glu Thr Thr Val Glu Leu Leu Phe
145                 150                 155                 160

gac agt gtt ata cat tta ggt tgt aaa cca tat ctg gac agc caa cga      648
Asp Ser Val Ile His Leu Gly Cys Lys Pro Tyr Leu Asp Ser Gln Arg
                165                 170                 175

gcc gca tgc agg tgt cat tat gaa gaa aaa act gat ctt taa              690
Ala Ala Cys Arg Cys His Tyr Glu Glu Lys Thr Asp Leu
            180                 185

aggagatgcc gacagctagt gacaga                                        716


<210> 2
<211> 189
<212> PRT
<213> Homo sapiens

<400> 2
Met Ala Leu Leu Ser Arg Pro Ala Leu Thr Leu Leu Leu Leu Leu Met
1               5                   10                  15

Ala Ala Val Val Arg Cys Gln Glu Gln Ala Gln Thr Thr Asp Trp Arg
            20                  25                  30

Ala Thr Leu Lys Thr Ile Arg Asn Gly Val His Lys Ile Asp Thr Tyr
        35                  40                  45

Leu Asn Ala Ala Leu Asp Leu Leu Gly Gly Glu Asp Gly Leu Cys Gln
    50                  55                  60

Tyr Lys Cys Ser Asp Gly Ser Lys Pro Phe Pro Arg Tyr Gly Tyr Lys
65                  70                  75                  80

Pro Ser Pro Pro Asn Gly Cys Gly Ser Pro Leu Phe Gly Val His Leu
                85                  90                  95

Asn Ile Gly Ile Pro Ser Leu Thr Lys Cys Cys Asn Gln His Asp Arg
            100                 105                 110

Cys Tyr Glu Thr Cys Gly Lys Ser Lys Asn Asp Cys Asp Glu Glu Phe
        115                 120                 125

Gln Tyr Cys Leu Ser Lys Ile Cys Arg Asp Val Gln Lys Thr Leu Gly
    130                 135                 140

Leu Thr Gln His Val Gln Ala Cys Glu Thr Thr Val Glu Leu Leu Phe
145                 150                 155                 160
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Asp Ser Val Ile His Leu Gly Cys Lys Pro Tyr Leu Asp Ser Gln Arg
165 170 175

Ala Ala Cys Arg Cys His Tyr Glu Glu Lys Thr Asp Leu
180 185

<210> 3
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 3
tttgcggccg catatggagc tggctgctgc caagt 35

<210> 4
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 4
tttaagcttc tagaatctgt cactagctgt cggcatc 37

<210> 5
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 5
tttggatcca tcgaaggtcg tcaggagcag gcccagaccg ac 42

<210> 6
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 6
gcctttccca cgttatggtt 20

<210> 7
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 7
ggatgtggct ctccactgtt 20

<210> 8
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 8
Gly Cys Gly Ser Pro
1 5

<210> 9
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus sequence

<220>
<221> MOD_RES
<222> (3)..(4)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (7)
<223> Any amino acid

<400> 9
Cys Cys Xaa Xaa His Asp Xaa Cys
1 5

<210> 10
<211> 182
<212> PRT
<213> Murine sp.

<400> 10
Ser Pro Ala Leu Leu Leu Leu Leu Leu Ala Thr Ala Arg Gly Gln
1 5 10 15

Glu Gln Asp Gln Thr Thr Asp Trp Arg Ala Thr Leu Lys Thr Ile Arg
20 25 30

Asn Gly Ile His Lys Ile Asp Thr Tyr Leu Asn Ala Ala Leu Asp Leu
35 40 45

Leu Gly Gly Glu Asp Gly Leu Cys Gln Tyr Lys Cys Ser Asp Gly Ser
50 55 60

```
Lys Pro Val Pro Arg Tyr Gly Tyr Lys Pro Ser Pro Pro Asn Gly Cys
 65                  70                  75                  80

Gly Ser Pro Leu Phe Gly Val His Leu Asn Ile Gly Ile Pro Ser Leu
                 85                  90                  95

Thr Lys Cys Cys Asn Gln His Asp Arg Cys Tyr Glu Thr Cys Gly Lys
            100                 105                 110

Ser Lys Asn Asp Cys Asp Glu Glu Phe Gln Tyr Cys Leu Ser Lys Ile
        115                 120                 125

Cys Arg Asp Val Gln Lys Thr Leu Gly Leu Ser Gln Asn Val Gln Ala
    130                 135                 140

Cys Glu Thr Thr Val Glu Leu Leu Phe Asp Ser Val Ile His Leu Gly
145                 150                 155                 160

Cys Lys Pro Tyr Leu Asp Ser Gln Arg Ala Ala Cys Trp Cys Arg Tyr
                165                 170                 175

Glu Glu Ile Thr Asp Leu
            180
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<210> 11
<211> 165
<212> PRT
<213> Rattus sp.

<400> 11

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Gln Asp Gln Thr Thr Asp Trp Arg Ala Thr Leu Lys Thr Ile Arg Asn
  1               5                  10                  15

Gly Ile His Lys Ile Asp Thr Tyr Leu Asn Ala Ala Leu Asp Leu Leu
            20                  25                  30

Gly Gly Glu Asp Gly Leu Cys Gln Tyr Lys Cys Ser Asp Gly Ser Lys
        35                  40                  45

Pro Ala Pro Arg Tyr Gly Tyr Lys Pro Ser Pro Pro Asn Gly Cys Gly
    50                  55                  60

Ser Pro Leu Phe Gly Val His Leu Asn Ile Gly Ile Pro Ser Leu Thr
 65                  70                  75                  80

Lys Cys Cys Asn Gln His Asp Arg Cys Tyr Glu Thr Cys Gly Lys Gly
                85                  90                  95

Lys Asn Asp Cys Asp Glu Glu Phe Gln Ser Cys Leu Ser Lys Ile Cys
            100                 105                 110

Arg Asp Val Gln Lys Thr Leu Gly Leu Ser Gln Asn Val Gln Ala Cys
        115                 120                 125

Glu Thr Thr Val Glu Leu Leu Phe Asp Ser Val Ile His Leu Gly Cys
    130                 135                 140

Lys Pro Tyr Leu Asp Ser Gln Arg Ala Ala Cys Trp Cys Arg Tyr Glu
145                 150                 155                 160
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Glu Lys Thr Asp Leu
                165


<210> 12
<211> 136
<212> PRT
<213> Bovine sp.

<400> 12
Asn Ala Ala Leu Asp Leu Leu Gly Gly Glu Asp Gly Leu Cys Gln Tyr
  1               5                  10                  15

Lys Cys Ser Asp Gly Ser Lys Pro Phe Pro Arg Tyr Gly Tyr Lys Pro
            20                  25                  30

Ser Pro Pro Asn Gly Cys Gly Ser Pro Leu Phe Gly Val His Leu Asn
        35                  40                  45

Ile Gly Ile Pro Ser Leu Thr Lys Cys Cys Asn Gln His Asp Arg Cys
    50                  55                  60

Tyr Glu Thr Cys Gly Lys Ser Lys Asn Asp Cys Asp Glu Ala Phe Gln
65                  70                  75                  80

Ser Cys Leu Ser Lys Ile Cys Arg Asp Val Gln Lys Thr Leu Gly Leu
                85                  90                  95

Ala Gln His Val Gln Ala Cys Glu Thr Thr Val Glu Leu Leu Phe Asp
            100                 105                 110

Ser Val Ile His Leu Gly Cys Lys Pro Tyr Leu Asp Ser Gln Arg Ala
        115                 120                 125

Ala Cys Arg Cys Arg Tyr Glu Glu
    130                 135


<210> 13
<211> 194
<212> PRT
<213> Xenopus sp.

<400> 13
Met Arg Phe Arg Gly Phe Leu Tyr Val Leu Trp Phe Ala Tyr Cys Ala
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Pro Arg Phe Ser His Gln Glu Pro Trp His Gln Ser Asp Gln Gln Pro
            20                  25                  30

Glu Thr Pro Asp Trp Arg Met Thr Leu Lys Thr Ile Arg Asn Gly Val
        35                  40                  45

His Lys Ile Asp Met Tyr Leu Asn Ala Ala Leu Asp Leu Leu Gly Gly
    50                  55                  60

Ala Asp Gly Leu Cys His Tyr Glu Cys Arg Asp Gly Ser Lys Pro Val
65                  70                  75                  80

Pro Arg Tyr Gly Tyr Arg Pro Ser Pro Pro Asn Gly Cys Gly Ser Pro
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```
                85                  90                  95

Val Phe Gly Val His Asp Ile Gly Ile Pro Ser Met Thr Lys Cys Cys
            100                 105                 110

Asn Gln His Asp Arg Cys Tyr Asp Ser Cys Gly Ile Met Lys Asn Asp
        115                 120                 125

Cys Asp Glu Glu Phe Gln Asn Cys Leu Ser Lys Ile Cys Arg Asp Val
    130                 135                 140

Gln Lys Thr Leu Gly Ile Ser Glu Thr Val Gln Ala Cys Glu Thr Thr
145                 150                 155                 160

Val Gly Leu Leu Phe Asp Ala Val Ile His Leu Gly Cys Lys Pro Tyr
                165                 170                 175

Leu Glu Ser Gln Arg Ala Ala Cys Ile Cys Gln Tyr Glu Glu Lys Ile
            180                 185                 190

Asp Leu
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<210> 14
<211> 37
<212> PRT
<213> Homo sapiens

<400> 14

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Glu Tyr Asn Asn Tyr Gly Cys Tyr Cys Gly Leu Gly Gly Ser Gly Thr
  1               5                  10                  15

Pro Val Asp Glu Leu Asp Lys Cys Cys Gln Thr His Asp Asn Cys Tyr
             20                  25                  30

Asp Gln Ala Lys Lys
         35
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<210> 15
<211> 43
<212> PRT
<213> Homo sapiens

<400> 15

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Trp Thr Met Pro Gly Thr Leu Trp Cys Gly Val Gly Asp Ser Ala Gly
  1               5                  10                  15

Asn Ser Ser Glu Leu Gly Val Phe Gln Gly Pro Asp Leu Cys Cys Arg
             20                  25                  30

Glu His Asp Arg Cys Pro Gln Asn Ile Ser Pro
         35                  40
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<210> 16
<211> 38
<212> PRT
<213> Conus magus

<220>
<221> MOD_RES
<222> (15)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (21)
<223> Any amino acid

<400> 16
Leu Cys Lys Ile Asn Ser Asn Ala Cys Ser Val Pro Phe Ser Xaa Ile
1 5 10 15

Pro Cys Gln Lys Xaa Phe Leu Ala Ala Cys Asp Arg His Asp Thr Cys
20 25 30

Tyr His Cys Gly Lys His
35

<210> 17
<211> 41
<212> PRT
<213> Oryza sativa

<400> 17
Pro Leu Leu Arg Tyr Gly Lys Tyr Cys Gly Ile Leu Tyr Ser Gly Cys
1 5 10 15

Pro Gly Glu Arg Pro Cys Asp Ala Leu Asp Ala Cys Cys Met Val His
20 25 30

Asp His Cys Val Asp Thr His Asn Asp
35 40

<210> 18
<211> 41
<212> PRT
<213> Homo sapiens

<400> 18
Tyr Lys Pro Ser Pro Pro Asn Gly Cys Gly Ser Pro Leu Phe Gly Val
1 5 10 15

His Leu Asn Ile Gly Ile Pro Ser Leu Thr Lys Cys Cys Asn Gln His
20 25 30

Asp Arg Cys Tyr Glu Thr Cys Gly Lys
35 40